

ABSTRACT OF THE DISCLOSURE

A mobile station, base station and method for data transmission in a mobile radio system, wherein for the purpose of observing GSM base stations, interruption phases are inserted in a UMTS transmission. To reduce the number of these interruption phases, the maximum effective duration of the interruption phases is chosen to be shorter than is needed under optimum transmission conditions for secure detection of a data packet which is to be detected and is sent from a GSM base station. A shrewd choice of parameters provides a better ratio of effort (effective duration of the interruption phase) to result (detection probability).

In the claims:

On amended page 1, cancel line 1, and substitute the following left-hand justified heading therefor:

I Claim as My Invention:

Please cancel claims 1-18, without prejudice, and substitute the following claims therefor:

- ai
- 19 29. A method for data transmission in a mobile radio system, the method comprising the steps of:
- transmitting data between a first base station and at least one mobile station based on a first transmission method;
 - inserting interruption phases, at least during particular transmission phases, in which the mobile station interrupts the transmission of the data and in which the mobile station is switched to reception of data packets sent by a second base station based on a second transmission method, the second base station operating on a GSM standard which is based on a synchronization frame structure having a period of 51 frames; and
 - inserting interruption phases having an effective total duration of a maximum of 10 observation frames.
- 20 30. A method for data transmission and a mobile radio system as claimed in claim 29, wherein a period of 52 GSM frames lies between a start of a first interruption phase and a start of a second interruption phase.